

REMARKS**Claim Status**

Claims 1-17 are pending in the application. This paper proposes amendment of claim 10. Claims 1, 5, 6, 10, 11, and 15-17 are the independent claims of the application.

Art Rejections

The Final Office Action maintained rejections of independent claims 1, 6, 11, and 16 under 35 U.S.C. § 102(b) as being anticipated by Esmailzadeh *et al.*, *Quasi-Synchronous Time Division Duplex CDMA*, 1637-41 (Global Telecommunications Conference, IEEE, Vol. 3, Nov. 28-Dec.2, 1994) (“Esmailzadeh” hereinafter). The Final Office Action also maintained rejections of claims 1-17 under 35 U.S.C. § 102(e) as being anticipated by Gilbert *et al.*, U.S. Patent Number 6,016,311 (“Gilbert” hereinafter).

Replying to the previous Office action (which was mailed on June 2, 2004), Applicants argued that Esmailzadeh does not disclose time division duplexing using time division multiple access (TDMA), as recited in independent claims 1, 6, 11, and 16. Applicants further argued that Gilbert teaches synchronizing different base stations with each other, while independent claims 1, 6, 10, 11, and 16 recite that the plural channels are between the base station and the CPEs, and therefore synchronizing in accordance with these claims is performed on upstream and downstream frames of channels of the same base station. In response to these arguments, the Final Office Action

states that the pertinent limitations appear in claim preambles and therefore have not been given patentable weight. In particular, the Final Office Action states that “[a] preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.” In the present case, the body of each of the claims in issue does depend on the preamble and cannot stand alone.

In claim 1, for example, the body of the claim recites “synchronizing frames across the plural channels” (underlining added for emphasis). Note that the recitation of “plural channels” is preceded by definite article “the.” This is so because the “plural channels” were previously recited in the preamble. Without the preamble, recitation of “plural channels” in the body of the claim could not properly be preceded by “the,” and the claim would have to be rejected for lack of antecedent basis for this limitation. Claim 1 has not been rejected for lack of antecedent basis of the “plural channels” limitation. The “plural channels” in the body of claim 1 clearly depend on the preamble for antecedent basis. As the Court of Appeals for the Federal Circuit noted, “dependence on a particular disputed preamble phrase for antecedent basis may limit claim scope because it indicates a reliance on both the preamble and claim body to define the claimed invention.” *Catalina Mktg, Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 U.S.P.Q.2d 1781, 1785 (Fed. Cir. 2002) (cited in MPEP § 2111.02). Therefore, “plural channels” within the body of claim 1 are the same channels as are recited in the preamble of that claim, *i.e.*, plural time division multiple access (TDMA) channels between a base station and a plurality of CPEs. The body of claim 1 cannot stand alone, without the preamble’s definition of the “plural channels” limitation, which requires that the channels be TDMA channels between the base station and the plurality of CPEs.

Furthermore, “[a]ny terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.” MPEP § 2111.02 (citing *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 U.S.P.Q.2d 1962, 1966 (Fed. Cir. 1989); *Pac-Tec Inc. v. Amerace Corp.*, 903 F.2d 796, 801, 14 U.S.P.Q.2d 1871, 1876 (Fed. Cir. 1990); and *In re Stencel*, 828 F.2d 751, 4 U.S.P.Q.2d 1071 (Fed. Cir. 1987)). In claim 1 of the present application, “the plural channels” in the body of claim 1 are clearly limited by the terminology of the preamble of the same claim. The limitations should not be ignored.

Properly construed, claim 1 is not anticipated by Esmailzadeh because this reference apparently does not disclose time division duplexing using time division multiple access (TDMA) channels. Claim 1 is not anticipated by Gilbert, because Gilbert apparently fails to disclose synchronizing upstream and downstream frames of channels of the same base station. At least for these reasons, claim 1 is not anticipated by Esmailzadeh or by Gilbert.

Each of the independent claims 6, 11, and 16 similarly recites “the plural channels” within its respective body, and defines in its respective preamble “plural channels” as TDMA channels between base station and plurality of CPEs. Therefore, claims 6, 11, and 16 are not anticipated by Esmailzadeh or Gilbert for the reasons discussed above in relation to claim 1.

This paper proposes amending independent claim 10 to recite “plural time division multiple access (TDMA) channels between the base station and the consumer provided equipment” within the body of the claim. Claim 10, as amended, is not anticipated by Esmailzadeh and Gilbert because the first reference apparently does not disclose TDMA, and the second reference apparently does not disclose plural channels between the base station and the CPE.

Turning next to independent claims 5, 15, and 17, the Final Office Action cited Gilbert at column 10, lines 18-20; and at column 13, lines 4-18 and 51-59. In rejecting claim 17, the Office Action further cited Gilbert's Figures 7 and 8. Claims 5, 15, and 17 recite "switching channels based on received media access protocol messages so as to receive data bursts on plural channels." Applicants have reviewed Gilbert, and specifically the portions cited by the Final Office Action, but have not identified a teaching of switching channels to receive data burst on plural channels.

In particular, the cited text of column 10 reads as follows: "The information in a stream includes address information which enables a selected CPE 110 to distinguish and extract the information intended for it." Gilbert, col. 10, lines 18-20. The quoted sentence apparently does not disclose switching channels to receive data bursts on plural channels. The cited text of column 13 is quoted below:

As described above, the present ATDD method and apparatus allows time slots to be dynamically re-configured to meet the bandwidth needs of each link in the communication system. A simplified approach is to establish and fix each communication link's uplink/downlink time slot ratio at the time that the link is initially installed. A more complex yet more efficient approach requires that the communication system monitor several different system parameters in order to adaptively and dynamically change the channel time slot ratio based upon the varying bandwidth requirements. One preferred method and apparatus for monitoring the communication system parameters and for updating the channel time slot ratio is described below. Although one technique is described herein, the present ATDD invention contemplates several alternative approaches.

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As shown in FIG. 9, the synchronization, control and management of base stations 106 within a cluster 160 is preferably performed by a cluster controller 162. The cluster controller 162 controls the operation, timing and uplink/downlink bandwidth allocations of each of the base stations 106 in a cluster 160. In some systems, the functions performed by the cluster controller 162 can be implemented by the network management computer system 122 described above and located in the hub 114 of FIG. 5.

Gilbert, col. 13, lines 4-18 and 51-59. It appears that the quoted text describes, *inter alia*, changing uplink/downlink slot ratio of a channel to meet the bandwidth needs of each link. Applicants have not identified in the quoted text a disclosure of switching channels or a disclosure of receiving data bursts on plural channels, as is recited in each of the claims 5, 15, and 17. At least for this reason, claims 5, 15, and 17 are not anticipated by Gilbert. If the rejection of the claims is maintained, Applicants respectfully request a reasoned statement explaining how the quoted text can be understood to disclose the pertinent limitations.

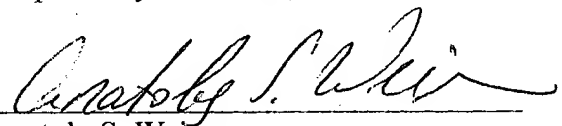
The above discussion addresses rejection of all independent claims. As regards the dependent claims not specifically discussed, these claims are patentable together with their base claims and intervening claims, if any.

CONCLUSION

For the foregoing reasons, Applicants respectfully submit that all pending claims are patentable over Esmailzadeh and Gilbert. To discuss any matter pertaining to the present application, the Examiner is invited to call the undersigned attorney at (858) 720-9431.

Having made an effort to bring the application in condition for allowance, a timely notice to this effect is earnestly solicited.

Respectfully submitted,


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